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Byzantium: its internal history and relations with the Muslim world

Collected Studies

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IX

BYZANTIUM AND ISLAM

SEVEN-SEVENTEENTH CENTURY*

I. The First Period

Despite the great religious and linguistic differences which separated Byzantine and Islamic civilizations, differences reinforced by political enmity and almost a millennium of mortal combat, one perceives striking similarities in the Byzantine and Islamic cultures. In the relations of the citizen to God, to the state, to his fellow citizen, to the exploitation of the soil and the sea, and even in those highly particular manifestations of man's soul and mind which we usually describe as cultural or intellectual endeavor, these similarities are so definite that they seem to mock the linguistic, religious, and political differences.[1] The problem which arises here is that of isolating certain of these similarities and then of explaining their origin. It is obviously impossible to exhaust such a topic in the brief period which the directors of the conference have so wisely allotted. But even if the generosity of the directors had matched their wisdom (and let me add that one should be infinitely more wise than generous), the task of covering exhaustively these similarities throughout 1000 years of development would still have been doomed to unfulfillment, for the complex problems which stud the comparative approach to Byzantine and Islamic civilizations still await the efforts of the various specialists. Though these questions have long

* This paper was presented at the symposium, Medieval Greece: Background and Legacy, April 21-22, 1967, at the University of Colorado.

[1]G. von Grunebaum, *Medieval Islam. A Study in Cultural Orientation*, 2nd ed. (Chicago, 1953).

interested me I have investigated only a small portion of them on the basis of a detailed examination, and only during the latter period of Byzantino-Islamic relations. But in a meeting such as the present one, where we are concerned with more general characterizations of the medieval Greek heritage, I have taken this broad scope as scholarly license to wade into the factual morass of a thousand years of history, and to attempt to generalize outside the area of my own detailed researches. The remarks which follow are to be construed as a preliminary and cursory investigation and nothing more.

When the Arabs left the Arabian peninsula and conquered their empire in the seventh century they emerged into an area which had enjoyed almost a thousand years of common culture and history. This statement is assuredly a vast oversimplification of the situation in the Near East during the 956 years separating the deaths of Alexander the Great and Muhammud, for intense local variety is discernable at every point. But the Alexandrian conquests serve as a water shed in the history of the Near East after which there emerges a new cultural koine in much of the area. At the basis of this koine were elements from the Graeco-Roman, Iranian, Semitic, and Egyptian traditions, which in one form or another became part of a common culture. On the shores of the Mediterranean the Graeco-Roman component tended to predominate, whereas a movement eastward reveals the predominance of the Perso-Babylonian components. These differences were undoubtedly reinforced by the political juxtaposition first of Rome and Parthia and then of Byzantium and Sassanid Persia, but these political antagonisms and divisions were not sufficient to disturb the cultural entity of the Near East, an entity which stands apart from that of India, Central Asia, and China, and is basically related to that of the Mediterranean world. Elements from the eastern portion of the cultural entity moved west (such were the divine absolute monarchy, the complex bureaucracy, and mystery religions). Conversely, elements of Graeco-Roman science, mathematics, art, geography, medicine, philosophy, and law entered the cultural life of the more eastern components of this cultural area. It was the presence of Hellenism in medieval Islamic civilization which caused the great Islamist Carl Becker to remark that the unified character of Islamic civilization rested on a base of Hellenism, a foundation which in turn related Islamic civilization to that of Europe rather than to those of India, Central Asia, and China. It was with this concept in mind that he coined a Pirennism (before the time of Pirenne): "Without Alexander, no Muhammud." That is to say, before the appearance of Mu-

hammud many of the areas over which his religion eventually spread possessed a unified civilization and the basis of this unity was late Hellenism. In essence Becker's theory is not unlike that which explains the spread of Christianity by the existence of the Roman Empire and the Greek language.[2]

Whether one agrees or disagrees with such a sharp conceptualization of this cultural koine there can be little doubt that there is a substantial truth in Becker's Pirennism. Almost universally accepted by Islamists is the proposition that a good deal in Islamic civilization is of non-Arab origin. Whether one thinks of the Islamic state and administration, or its material and intellectual culture, there is comparatively little which the Byzantines and Persians did not influence. Even in those cultural facets which are of Arab origin, that is the Islamic religion and law, there are the tell-tale traces of Christian dogmatism, and a Romano-Byzantine law. Thus the conquering Arabs adapted themselves to the existing civilization which they found in their empire but they clothed it in the wealthy raiment of the Arabic language and in the religious idiom of their prophet Muhammud.

After such a broad introduction we must now narrow the question somewhat to consider the influence of medieval Hellenism on Islamic civilization. In many respects it was the Persian rather than the Byzantine legacy which was decisive for the development of Islamic civilization, and because I shall concentrate hereafter on the Byzantine legacy one should not misconstrue this concentration on Byzantium to the exclusion of Persia. Of equally great interest and importance are the influences which Islamic civilization exercised on Byzantium, but these also will receive no treatment here.[3] One may add parenthetically that Byzantine and Persian forms were often so similar (being themselves the product of this cultural koine) that the question of immediate Persian or Byzantine inspiration of a particular institution in Islamic civilization is rendered difficult and obscure.

What were the vehicles by which Byzantine Hellenism was diffused? There were the Greeks themselves, most numerous in Asia Minor and

[2]C. Becker, *Islamstudien. Vom Werden und Wesen der islamischen Welt* (hereafter *Islamstudien*) I, (Leipzig, 1924), 1-39.

[3]As for instance in art, court ceremonial, and later in astronomy. D. Sourdel, "Questions de cérémonial abbaside," *Revue des Études Islamiques* XXVIII (1960), 121-148. C. Diehl, *Manuel d'art byzantin*, 2nd ed. (Paris, 1925), 369-70 and *passim*. D. Pingree, "Gregory Chioniades and Palaeologan Astronomy, *Dumbarton Oaks Papers*, XVIII (1964), 133-160.

the Balkans but present as minorities in Syria and Egypt. Far more important in this diffusion were the non-Greek subjects of the provinces, that is the Copts, Syriac Christians and the pagan Sabaeans of Harran. There can be no doubt that the Aramaic-Syriac Christians played the most important role in the diffusion of this Hellenism. Their ecclesiastical communities formed a bridge over which the Byzantine and Sassanid customs and practices entered the melting pot of the cultural koine. It is no accident that many of the Greek and Persian loanwords which entered Arabic at an early date entered not directly from Greek and Pahlevi, but via Aramaic or Syriac forms. The pre-Islamic Arabs living on the Syrian borders had already been heavily influenced by this Syriac Hellenism, and after the Arab conquest the Syriac speakers became the teachers and civilized inculcators of the conquerors. It was these Syriac Christians, whether Nestorians or Monophysites, who played the major role in the transmission of the Hellenic intellectual heritage to Islamic civilization. Thus we have a seeming paradox, that the principle vehicle of Byzantine influence was not the Greeks themselves, but a group of their former semitic subjects. Their partial Hellenization is apparent in the attention which their intellectuals gave to Greek science, philosophy, medicine, and literature. Thus when we speak of the Monophysite and Nestorian reaction against Chalcedonianism we must remember that this religious antagonism (itself based on different Greek schools) of Greeks and non-Greeks did not mean that the Semitic Christians rejected this important segment of the Hellenic heritage. Hellenism did not enter Islam solely via Greek and Syriac speakers, for there is also evidence for the fact that the Persians and Indians as well were purveyors of a part of this intellectual stream. Greek lore passed into Arabic via translations from Pahlevi (a pattern discernible in the translations of the Persian al-Muqaffa in the ninth century), whereas the translations of certain Sanscrit geographical works into Arabic brought with them Greek elements which had entered Indian geographical science at an earlier date. A principal source of Greek influence on the development of the theory and practice of medicine in Baghdad was the Nestorian medical academy in the Persian city of Gundeshapur. The physicians and professors of this school not only cultivated the traditions of Greek medicine but were called to Baghdad to found hospitals and to teach medicine. Important in the acquisition of the material aspects of Byzantine civilization was the role of the Arab auxiliary tribes (Ghassanids and Lakhmids) who had lived for centuries on the borders of Byzantium and Persia. Finally, and perhaps most im-

portant in conveying Byzantine culture and practice to Muslims were the converted Copts, Syrians, Armenians, and Greeks who by the ninth century constituted a majority of the population inhabiting the formerly Byzantine provinces of the Levant.[4]

I have, up to this point, spoken briefly of general questions: the cultural koine of the Near East and the vehicle of diffusion of Byzantine Hellenism. To these I should like to attach a short outline of the factors which played a role in determining Byzantino-Islamic relations in the cultural and other spheres. First: the Arabs brought certain forms with them when they emerged from Arabia, and the most important of these for the Near East were the Arabic language, a highly developed Arabic poetry, and the religion of Muhammud. The language, poetry, and religion, for a variety of reasons, were equal or superior to their equivalents in the Pre-Islamic Near East, but in most everything else Arab society was not nearly so developed as that of the non-Muslims. Second: Egypt, Syria, Asia Minor, the Balkans, and North Africa were highly developed regions of Byzantine civilization, as similarly Iran and Iraq were the abode of the Perso-Babylonian culture.[5] Roughly speaking, the Euphrates River system marked the dividing line between the Persian and Byzantine versions of the Erbe der Antike. Third: the Arab conquest was not destructive; the older societies survived the conquest intact . . .

[4]De Lacy O'Leary, *How Greek Science Passed to the Arabs* (London, 1948). Becker, *Islamstudien, I, 17. S. Fraenkel, Die aramaïschen Fremdwörter im Arabischen* (Leiden, 1866). A. Siddiqi, *Studien über die persischen Fremdwörter im klassischen Arabisch* (Gottingen, 1919). A. Siassi, "L'Université de Gond i Shahpur," *Mélanges H. Massé* (Tehran, 1963), 366-374. "Gondēshāpūr," EI_2. C.A. Nallino, "Tracce di opere greche giunte agli Arabi per trafila pehlevica," *Raccolta di scritti editi e inediti*, vol. VI (Rome, 1948), 285-303. For the role of the Arab auxiliaries of Byzantium see the various articles of Irfan (Kawar) Shahid, "Byzantium and Kinda," *Byzantinische Zeitschrift*, LIII (1960), 57-73; "Procopius and Kinda," *Byzantinische Zeitschrift*, LIII (1960), 74-76; "The Patriciate of Arethas," *Byzantinische Zeitschrift*, LII (1959), 321-343; "The Last Days of Salih," *Arabica*, V (1958), 145-158. N.V. Pigulevskaia, *Araby u granits-Vizantii i Irana v IV-VI vv* (Moscow-Leningrad, 1964).

[5]For descriptions of Byzantine and Iranian societies in these areas just prior to the Arab conquest one may consult the following: G. Downey, *A History of Antioch in Syria: From Seleucus to the Arab Conquest* (Princeton, 1961). M. Gelzer, *Studien zur byzantinische Verwaltung Ägypten's* (Leipzig, 1909). C. Diehl, *L'Afrique byzantine* (Paris, 1896). P. Goubert, *Byzance avant l'Islam. I Byzance et l'Orient sous les successeurs de Justinien. L'Empereur Maurice* (Paris, 1951). G. Rouillard, *L'Administration civile de l'Egypte byzantine*, 2nd ed. (Paris, 1928). A. Christensen, *L'Iran sous les Sassanides*, 2nd ed. (Copenhagen, 1944).

violent disruption having been limited to the political apex. That is to say that the Sassanid monarchy came to an end, and the Byzantine emperors lost control of Egypt, Syria, and North Africa. Fourth: by the eighth century of the Christian era there is a crystallization of Arabic as the language of government, and of Islam as an articulate religious structure. Thereafter these linguistic and religious norms begin to penetrate and to re-arrange the various aspects of organized life in the Near East. Though these four factors do not exhaust the categories of determining factors, they are sufficient guidelines for this short paper. There are, finally, two more grids of mnemonic and causal expedience which will help to give this paper some form. It is not only convenient (at least for the temporally minded race of historians), but it is also factually accurate to posit three distinct periods, eras, or waves of Byzantine influence on Islamic civilization. The first begins with the Arab conquest and ends with the demise of the Umayyad caliphate in the east. The second begins with the shift of the caliphate to Baghdad, a shift which displaces the center of gravity of Islamic civilization from a Byzantine to a Sassanid milieu. The third coincides with the establishment of the Seljuks and Ottomans in Asia Minor and the Balkans, a move which brought an important segment of Islam into the strongest Byzantine environment. Along with these temporal demarcations one should keep in mind a two-fold topical one. Byzantium exercised its influence on the level of formal culture, that is to say, on the level of civilization which the state, established religion, formal art, literature, etc., operated, and also on the level of what we would call popular or folk culture. The historical process of cultural transmission and continuity thus operated or failed to operate at these two levels. The rulers and upper classes played a predominant role in determining cultural developments on this formal level, whereas this formal culture either left the folk level unaffected or little affected, or else it took centuries to affect it and then often did so only in the form of a gross cultural symbiosis and synthesis.

The period of Islamic history which began with the Arab conquests and ended with the Abbasid revolution was one of the shortest as well as one of the most explosive eras in the long annals of Islam. It was also the period of the greatest and most intense Byzantine influence on developing Islamic civilization. In short there were few aspects of Byzantine society which did not continue to exist under and to be imitated by the Arab conquerors in this one and a quarter century. This Byzantinization is evident in the very highest institution of the new Arab Empire, the caliphate. The despotism so exotically and magnificently

described in the *Thousand and One Nights*, entrapped with aulic formulae, rituals, processions, seclusion, rich court costumes, with the highly developed court retinue, is a far cry from the simple, almost primitive ambiance of Muhammud and the early orthodox caliphs. It is obvious that the road from the court of Abu Bekr to that of Harun-ar-Rashid proceeded via the courts of Heraclius and Chosroes. The simplicity of Arab court life is revealed by an anecdote which has as its subject the enigmatic Christian Mukaukas, the first governor of Egypt after its conquest. According to the story a group of Arabs seated on the ground were amazed at the appearance of the Christian lord being carried on a golden litter. The startled Arabs did not at first realize that their Christian subjects were long conditioned to show respect to those who were ornamented with the symbols of authority.[6] The contrast between the original Arab simplicity and Byzantine court form emerges in a second story which Tabari tells. Muawiyya was criticized for having adopted the foreign ways of the Basileis and of the Shahs, to which he replied, "that Damascus was full of Greeks and that none would believe in his power if he did not behave and look like an emperor."[7] Thus, under Byzantine influence the caliphate was first imperialized, a process commenced by the Umayyads, and later completed by the Abbasids who Iranized it. There seems no reason to doubt the fact that the caliphate would have become a more complex institution even if there had been no Byzantine or Persian models to copy, for the fact of the massive conquests demanded something more than the primitive caliphate. However, such phenomena as the designation of a royal heir by the caliph himself, the policy of glorification through monumental architecture, numismatic policy, ceremonial adaptations, the definition of law by imperial rescript, plus the above anecdotes leave little room for doubt that the Byzantine basileia had a profound influence on the Islamic khalifiya. The determined and nearly successful attacks of the Umayyads on Constantinople strongly support Gibb's thesis that the Umayyads were not only emulating the emperors on the Bosphorus but actually hoped to replace them.[8] Though later Muslims had largely forgotten the non-Arab origins of the imperial character of the caliphate, so

[6]Ibn Khaldun, *The Muqaddimah*, tr. F. Rosenthal (hereafter Ibn Khaldun), II, (New York, 1958), 53.

[7]O. Grabar, "Islamic Art and Byzantium," *Dumbarton Oaks Papers*, XVIII (1964), 88.

[8]H.A.R. Gibb, "Arab-Byzantine Relations under the Umayyad Caliphate," *Dumbarton Oaks Papers*, XII (1958), 223-233.

discerning an author as Ibn Khaldun perceived it clearly in the fifteenth century.

> They (Muslims) wanted to avoid the coarseness of royal authority and do without royal customs. They also despised pomp, which has nothing whatever to do with the truth. The caliphate then came to be royal authority, and the Muslims learned to esteem the splendor and luxury of this world. Persian and Byzantine clients, subjects of the preceding (Pre-Islamic) dynasties, mixed with them and showed them their ways of ostentation and luxury.[9]

The nature of the evidence for Byzantine influences in the realm of administrative and therefore also of economic life in this early period is much more detailed and far more satisfactory in terms of specific conclusions. Thanks to the Egyptian climate and soil the historian is able to gain a true insight into the extent of this Byzantine influence on the institutional life of the new empire during the early years. It has frequently been suggested that Egypt always constituted a unique historical case and consequently a study of the early institutions there does not necessarily provide us with any indication as to what may have happened in Syria and elsewhere. This may be true in terms of specific taxes and offices, but on the more general level of continuity or lack of continuity there is evidence that the Egyptian example is not without value for Syria. Important Byzantine administrative units and offices had been those of the eparchies and the duces, the pagarchies and the pagarchs, with the civil governor (the Augoustalios) resident in Alexandria. The Arabs maintained, essentially, the Byzantine administrative apparatus with all the above offices and divisions. However they adapted it along more centralized lines. Henceforth the pagarchs became the most important administrative officials and were put under the governor at Fustat with the result that the assessment of the tax shares on the smaller units within the pagarchy was carried out in Fustat rather than in the pagarchy itself. Until the end of the seventh century of the Christian era these officials came from the ranks of the Christian landed aristocracy, and they continued to maintain their local Christian military levies as in Byzantine times. The tax structure was, therefore, virtually the same as it had been on the eve of the conquest. The basic tax divisions remained the Byzantine demosia, extraordina, and corvees. The first, the haraj ad-dimusiya, continued under the Arabs to consist of the

[9]Ibn Khaldun, II, 50. On the Byzantine origin of the tiraz, A. Grohmann, "Tiraz," EI_1.

chrysika demosia (cash tax on agricultural land, poll tax, dapane), and of the embola (corn tax) which was stored in the silos of Babylon or Fustat for the Arab settlers in Egypt or to be exported to Mecca and Medina. The extraordina consisted of requisitions made as the need occurred for the fleet, docks, arsenals, government buildings, etc. There were also the old Byzantine corvees for the upkeep of canals and the like. Not only were the taxes and the machinery of early Muslim Egypt Byzantine, but the Arab language had to borrow the termini technici from the Byzantine administrative language, either in Arab transliteration or translation.[10] The complex Egyptian tax system remained the bailiwick of the Christian Copts for centuries after the fisc had been Arabized, and the fiscal governor, the amil, usually had two Coptic chartularii directly under him. Also the fine and old Byzantine custom of double receipts is evident in the practice whereby the income of the state granaries was witnessed and receipted by two officials.[11]

Abandoning the Egyptian documents, a brief survey of the numismatic policies of this early period again illustrates the grip of Byzantine forms on the institutional life of this first Islamic century, and it further indicates that even though the Byzantine influence may have been more

[10]The basic taxes, the demosia, simply became al-haraj ad-dimusi in the Arab papyri. The tax registers, so frequently mentioned in both the Greek and Arab papyri, entered the language of the conquerors in the word tabl via Byzantine tablon. The silos in which the sitika demosia, the embola or corn tax, were stored came to be known in Arabic as hury (ahra) from horreum-orrion; farm lands in lease were denoted as baqt from the Byzantino-Roman pakton; al-usiya from the Byzantine ousia was a landed domain. Byzantine tax officials who survived, such as the grafeis and meizon, became garafisis and mazun in the Arab documents.

[11]Becker, *Islamstudien*, I, 146-201; "Egypt," EI_1; "Neue arabische Papyri des Aphroditofundes," *Der Islam*, I (1910), 245-268; "Historische Studien über das Londoner Aphroditowerk," *Der Islam*, II (1911), 359-371; "Steuerverhältnisse im ersten Jahrhundert," *Beiträge zur Geschichte Ägyptens unter dem Islam* (Strassburg, 1902-03), 81-112. H.I. Bell, "The Administration of Egypt under the 'Umayyad Khalifs," *Byzantinische Zeitschrift*, XXVIII (1928), 278-286; "Translations of the Greek Aphrodito Papyri in the British Museum," *Der Islam*, II (1911), 269-283, 372-384; III (1912), 132-140, 369-373; IV (1913), 87-96. A.J. Butler, *The Arab Conquest of Egypt and the Last Thirty Years of the Roman Dominion* (Oxford, 1902), pp. 450 ff. W. Björkman, *Beiträge zur Geschichte der Staatskanzlei im islamischen Ägypten* (Hamburg, 1928), 17. A. Grohmann, *Einführung und Chrestomathie zur arabischen Papyruskunde* (Prague, 1954), *passim*. "Griechische und lateinische Verwaltungstermini im arabischen Aegypten," *Chronique d'Egypte*, Nos. 13-14 (1932), 275-284. E.I. Vacca, "Sidjil," EI_1. L. Mitteis and U. Wilcken, *Grundzüge und Chrestomathie der Papyruskunde* I_1, (Hildesheim, 1963), 219-238.

profound in Egypt, it was very much in evidence elsewhere. Indeed the Umayyad coinage reflects the pervasive influence of Byzantine imperial concepts, administration, and economic life. The Byzantine monetary system was at the peak of its influence and vigor in the sixth and early seventh centuries. The gold solidus was truly the dollar of the early middle ages, constituting the preferred medium of exchange in India and it was even in circulation as far east as China where solidi and imitations have been found in Chinese tombs of the late sixth and early seventh centuries.[12] It would thus be expected, as in fact occurred, that the Arabs would adopt the Byzantine coinage current in Syria, Egypt, and North Africa. The earliest dinars of the Arabs were either Byzantine gold coins circulating in the Near East or the same items imported from Byzantium, or else Arab imitations of the solidi of Phocas and Heraclius. The metrology (4.50 gr.), the type (Emperor with cross, at least on early bronze), were those of the Byzantine coins, though most often there were such slight variations as removal of the crosses from the emperor's crown or removal of the crossbar from the cross potens on the reverse. Even the name, dinar, is the Byzantine aureus denarius. In North Africa the Arab dinars were true to the local Byzantine solidus, i.e., they were smaller (4.32 gr.), lumpier, and featured the shahada in Latin. The conquerors also maintained the smaller denominations of the solidus, the semissus and tremissus, the Arabic nisf and thalath. The bronze coinage, the fols, was similarly an imitation of the Byzantine follis. It is thus clear that the monetary policies of the first century were by and large those of Byzantium, though of course there were many variations. In addition, the fact that the Arabs maintained the two different types of solidi, one for North Africa and one for Syria-Egypt, plus the maintenance of the Byzantine metrological standards for each, indicates a certain exactness in the Arab administrative adaptative and imitative process. The history of early Arab numismatics demonstrates not only the continuity of Byzantine economic and administrative life, but also Byzantine influence on Arab political theory and practices. By the end of the seventh-eighth centuries the caliphs began to show their independent status as world rulers by numismatic innovations. They gradually abandoned the Byzantine iconography on the solidus-follis imitations, and the bearded caliph with

[12]E. Winstedt, *The Christian Topography of Cosmas Indicopleustes* (Cambridge, 1909), 323. S. Nai, "Zolotaia vizantiiskaia moneta naidennaia v mogile perioda dinastii Sui," *Vizantiiskii Vremennik*, XXI (1962), 178-182.

sword in the attitude of Friday prayer and in Arab garb temporarily replaced the Byzantine emperor with the globus and cross. However, Islam and Arabic completely transformed the dinar and fols (696/7 first Muslim dinar) so that all human representations were eventually abandoned and replaced by religious formulae in Arabic. Further the metrology was slightly altered from 4.50 to 4.25 in conformance with Arab weight standards. These alterations and adaptations of detail should not obscure the fact that the principles of monetary policy, a centralized bi-metallic currency, the coins themselves, and the use of coinage in imperial-religious propaganda, were all taken over from Byzantine examples.[13]

The uniform adoption of Byzantine currency throughout the former Byzantine provinces is not the only evidence for the continuity of Byzantine administrative and economic life outside Egypt. This latter hypothesis is further strengthened by what the author of the Kitab Futuh al-Buldan relates of administrative practice, to wit that until the reign of Abd al-Malik "Greek remained the language of the state registers," in Syria, Jordan, and part of Mesopotamia.[14] Ibn Khaldun notes clearly the continuity of both Byzantine and Persian practices in the fisc, and the Arab imitation of them.

> After the advent of Islam, the ministry (diwan) of the land tax and tax collections remained as it had been. The (diwan) of the Iraq used Persian, and that of Syria Byzantine Greek. The secretaries of the diwans were Muslim subjects of the two groups. Then, with the appearance of Abd al Malik b. Marwan, the form of the state became that of royal authority. People turned from the low standard of desert life to the splendor of sedentary culture and from the simplicity of illiteracy to the sophistication of literacy. Experts in writing and bookkeeping made their appearance among the Arabs and their clients. Thus, Abd al Malik ordered Sulayman b. Sad, then governor of Jordan (province), to introduce the use of Arabic in the diwan of Syria. Sulayman completed the task in exactly one year to the day. Sarhun, Abd al Malik's

[13]J. Walker, *A Catalogue of the Arab-Byzantine and Post-Reform Umaiyad Coins* (London, 1956). G. Miles, "The Early Islamic Bronze Coinage of Egypt," *Centennial Volume of the American Numismatic Society* (New York, 1958), 471-502. Ph. Grierson, "The Monetary Reforms of 'Abd al-Malik. Their Metrological Basis and their Financial Repercussions," *Journal of the Economic and Social History of the Orient*, III (1960), 241-264.

[14]Al-Baladhuri, *The Origins of the Islamic State, being a translation from the Arabic, accompanied with annotations geographic and historical notes of the Kitab futûh al-buldan of al-Imam bu-l'Abbas Ahmad ibn-Jabir al Baladhuri,* by Philip Khuri Hitti (hereafter al Baladhuri), I (New York, 1916), 301.

> secretary, looked (at the situation) and said to the Byzantine secretaries: "seek you a living in another craft, because God has taken this one from you."[15]

The same author repeats the causes for the continuity of Byzantine and Persian administrative practices in blunter language.

> No specific ranks existed among the (early Muslims) in the fields of tax collection, expenditures, and bookkeeping. The Muslims were illiterate Arabs who did not know how to write and keep books. For bookkeeping they employed Jews, Christians, or certain non-Arab clients versed in it. Bookkeeping was little known among them. Their nobles did not know it well, because illiteracy was their distinctive characteristic.[16]

Though the tax diwans were Arabized with the gradual removal of Persian and Greek (a process which stretched out for another century after the time of Abd al Malik in some provinces) the Coptic Christians were still in charge of the tax apparatus in fourteenth-fifteenth centuries Egypt and the Mamelukes frequently appointed the vezir from among these Coptic tax officials.[17]

The situation in the administration and coinage is reflected, on the everyday level, in the survival of Byzantine standards of weights and measures, standards which seem to have been utilized along with those which the Arabs brought from Arabia. A very interesting example of this metrological continuity is a Byzantine bronze weight of two ounces. The Byzantine weight has on the obverse a cross and, B /, which means two ounces (52.15 gr. so one ounce is 26.8 gr.). The reverse has an Arab inscription validating this weight:

> In the name of God: Muhammud is the messenger of God; Equity is God's. This is (a weight) of two ounces which Abdullah al-Walid, Commander of the faithful, has established (Walid 705-15).

The supreme terrestrial ruler of the Muslims officially declares the Byzantine and Islamic ounces to be one and the same.[18] The impact of Byzantine standards of measure can be gathered by a fleeting look at the work of A. Grohmann, *Einführung und Chrestomathie zur arabischen*

[15]Ibn Khaldun, II, 22.
[16]Ibn Khaldun, II, 8.
[17]Ibn Khaldun, II, 19.
[18]G. Miles, *A Byzantine Weight Validated by al-Walid* (New York, 1939); *Numismatic Notes and Monographs*, #87. For an earlier weight validated by a Muslim authority, G. Miles, "A Byzantine Bronze Weight in the Name of Bišr b. Marwan," *Arabica*, IX (1962), 113-118.

Papyruskunde (Prague, 1954). From his study we see that much of the nomenclature for Arab weights and measures was borrowed from local terminology.[19] Such evidence indicates quite strongly that the Arabs borrowed more than lexicography from the inhabitants of the former Byzantine provinces.

Though the situation in Syria is not nearly so well documented as it is in Egypt, nevertheless the same conclusions on Byzantine influence are inescapable. The Byzantine post system and highways were maintained, and the Arab armies were stationed according to the broad Byzantine provincial divisions.[20] Though some papyri and a few textual references have survived for Syria, the crucial evidence lies in the loan words which entered Arabic via Syriac at this time. The majority of Greek and even Persian words which entered Arabic at this early date did so, it is significant, via the Aramaic-Syriac speakers of Syria. Fraenkel's study lists approximately 190 words of Byzantine Greek origin which passed thus into Arabic at this time and the categories which they represent indicate how pervasive was the influence of Byzantine society: the house, yard, and household furniture; cuisine, clothing, and jewelry; animals; agriculture and botany; viniculture and wine containers; minerals; commerce, and trade; ships and maritime life; welfare; art of writing; crafts and arts; religion and Christianity.[21]

Before abandoning the material aspects of Umayyad society I should like to examine, briefly, urban life. When the Arabs conquered the Byzantine lands in the first half of the seventh century, many of the towns surrendered by treaty and thus survived and consequently the old Byzantine towns continued as the basis of urban society. In many instances the general physical shape of the city survived, the market place with its kaysariya, and the public baths continuing much as they had

[19]A. Grohmann, *op. cit.*, p. 146.

Greek	*Arabic*	*Greek*	*Arabic*
keration	—qirat	kankellon	—qanqal
litra	—ritl	sitla	—situla
ounkia	—wunqiyah	xestes	—qist
kantari	—qantar	sextarius	
artaba	—irdabb	knidion	—iqniz
oipe	—waiba		

[20]Gibb, *loc. cit.*, 223.

[21]Fraenkel, *op. cit.*, *passim*. A. Schall, *Studien über griechischen Fremdwörter im Syrischen* (Darmstadt, 1960).

previously been.[22] In the realm of municipal institutions some students of the question detect the origin of the Muslim ra'is (mayor) in the Byzantine offices of hipparchos, nykteparchos, praetor, and archon;[23] the direct and immediate origin of the muhtesib (an official in charge of the guilds, weights and measures, and municipal order) in the agoranomos; and the Muslim guilds in the Byzantine artisinal corporations.[24] The organization of industry and crafts is described only for Egypt, where the papyri once more come to our rescue. A large part of the populace of the towns and villages of Egypt had for centuries lived from the crafts and industries which utilized Egyptian raw materials. The most important and widespread of these was the textile industry. It is no coincidence that weaving of textiles and carpets centered only in those towns which continued as important Christian centers, for in the beginning the Arabs produced nothing. The linen industry was dominant in lower Egypt, while wool and cotton were worked in middle and upper Egypt. There were also state textile factories, but perhaps the most remarkable Byzantine survival was that of the female textile workers in the palace who wove special garments for the caliphs and high officials. This is the old gynaeconitis organization of the Byzantines, pure and simple. The crafts generally seem to have continued to be organized in artisinal bodies. Christian masons and architects of course remained the basis of the building craft both in Egypt and Syria, and the manufacture of papyrus was the provenance of Coptic Christians.[25]

The Byzantine-Umayyad cities apparently retained certain aspects of the regime of the circus factions and the neaniai in the later Islamic fityan and ahdath of the futuwwa. These latter, much like the Byzantine

[22]G. von Grunebaum, "Die islamische Stadt," *Saeculum*, VI (1955), 138-139; "The Moslim Town and the Hellenistic Town," *Scientia* (1955), 364-370. C. Cahen, "L'Evolution sociale du monde musulman jusqu'au XIIe siècle face à celle du monde chrétien," *Cahiers de civilisation mediévale*, I (1958), 451-463; II (1959), 37-51. L. Massignon, "Les corps de métiers et la cité islamique," *Opera Minora*, I (Beirut, 1963), 372. Fraenkel, *op. cit.*, under hamman.

[23]E. Ashtor/Strauss, "L'Administration urbaine en Syrie mediévale," *Revista degli studi orientali*, XXXI (1965), 111, 117.

[24]G. Marçais, "Considerations sur les villes musulmanes et notamment sur le role du Mohtasib," *Recuils de la Société Jean Bodin*, VI_1 (1954), 260-261. Gaudefroy-Demombynes, "Un magistrat: le mohtesib," *Journal des savants* (1947), 36, 40. B. Lewis, "The Islamic Guilds," *The Economic History Review*, VIII (1937), 20-37.

[25]Becker, *Islamstudien*, I, 182-185. Al-Baladhuri, I, 383-384. Mitteis and Wilcken, *op. cit.*, I, xxix-xxxii, 255-256. On military architecture, Creswell, "Architecture," EI_2. On warfare, F.W. Schwarzlose, *Die Waffen der alten Araber aus ihren Dichtern dargestellt* (Leipzig, 1886), 319-322.

neaniai, were vehicles of autonomous urban political, social, and sportive expression.[26] Given all these Byzantine survivals, the urban life of Umayyad Damascus, Jerusalem, Caesareia, Antioch, and Alexandria must have been largely Byzantine. The mosque merely replaced the church and the Arab governor the Byzantine prefect at the apex of the social and political order, but the substructure was Byzantine.

Particularly interesting are the formal domains of Islamic expression within which one would not expect to see Byzantine intrusions. Such were the fields of art, possibly music, and law. But in these Byzantine elements appear early and are taken up in the general Arabization and Islamization of art, music, and law.

Arab painting has been described as ". . . one of the products of the huge melting pot in which pre-Islamic and later art forms were fused and crystallized to constitute a new style."[27] Though it is true that in general Islam forbade pictures there were factors which ameliorated the stringency of this prohibition. First and foremost was the historical fact that in Syria and Egypt classical and oriental pictorial art and traditions had prevailed for centuries (as was also the case in Iran). This strong attachment to pictorial art found an outlet in the division of the secular and the religious which removed the latter from the anthropomorphism of pictorial art and permitted pictorialism in the secular domain. Thus by compromise both tendencies were accommodated. Painting could attain a considerable development in the decoration of such secular and hedonist institutions as the bath houses and the secluded harem quarters,[28] and later the translation of secular Greek manuscripts gave further impetus to the development of the art of the miniature.

Definite Byzantine coloration is present in the monumental architecture of the Umayyad dynasty in Syria, Palestine, and Arabia. This

[26]S. Vryonis, "Byzantine Circus Factions and Islamic Futuwwa Organizations (Neaniai, Fityān, Ahdāth)," *Byzantinische Zeitschrift*, LVIII (1965), 46-59. The Byzantine urban factions seem to have been introduced into sixth century Iran by Chosroes. C. Cahen, "Ahdath," EI_2; "Mouvements et organisations populaires dans les villes de l'Asie musulmane au moyen age: milices et associations de foutouwwa," *Recueils de la Société Jean Bodin*, VII (1955), 279-282. F. Taeschner, "Futuwwa, eine gemeinschaftsbildende Idee im mittelalterlichen Orient und ihre verschiedenen Erscheinungsformen," *Schweizerisiches Archiv für Volkskunde*, LII (1956), 122-158.

[27]R. Ettinghausen, *Arab Painting* (London, 1962), 12 and *passim* on all that follows. See A. Lane, *Early Islamic Pottery* (London, 1947), 7-8 for the Mediterranean background to the development of Islamic pottery.

[28]F. Rosenthal, *Das Fortleben der Antike im Islam* (Zurich, 1965), 357-359.

Byzantine influence lies in two spheres: first in the conceptualization of monumental architecture as a vehicle for glorification of dynasty, empire, and religion; and second in the actual techniques and execution of these monuments. The Dome of the Rock (691), the mosque of Damascus (706), and that of Medina (706-10), are the primary examples of this glorification through architecture. The interiors were decorated with the traditional mosaics by Christian craftsmen, some of whom were sent from Constantinople. The mosaics of the Dome of the Rock depict plants, fruit, vases, crowns, and arms in Byzantine and Sassanid patterns, whereas the mosaic decorations of the Damascus mosque are predominantly architectural reproductions in a purely Byzantine manner. The above mentioned compromise which accommodated Byzantine art to Muslim religious demands is, however, evident in the absence from these religious structures of human and animal figures. If the Islamic demands in this compromise with Byzantine art were rigidly observed in the Umayyad religious art, they were abandoned in secular art. One need only recall the Umayyad desert bath palaces, most famous of which is Qusayr 'Amra. Though certain Persian, and perhaps even central Asiatic, elements are present the basic ideas and execution come from Byzantine painting. The walls are covered with representations of nude women engaged in various activities, family groups, scenes of bathing, wrestling, hunting; views of masons, carpenters, and artisans at work. The panel which depicts the personifications of the Greek skepsis, istoria, and poiesis is most remarkable. Finally on one wall of the entrance hall are hierarchically depicted the six rulers defeated by the Arabs . . . the Byzantine basileus, the Persian shah, Roderic the last Visigothic king, the negus of Abyssinia, then probably the emperor of China and either the king of India or of the Turks. All this in a scene which is an Arab adaptation of the Byzantine family of rulers.[29]

Music seems to have had a parallel development. That which occurred in the music of the Islamic world is most succinctly stated by Ibn Khaldun.

> In the non-Arab countries before Islam, music was highly developed in cities and towns. . . . The Arabs originally had (only) poetry.
>
> Now, camel drivers sang when they drove their camels and young men sang when they were alone. . . .
>
> When (the Arabs) sang, they often effected a simple harmony between the modes. . . . All these simple types of melodious music are

[29]Ettinghausen, *op. cit.*, 12-33.

primary ones. It is not unlikely to assume that they can be grasped by nature without any instruction, as is the case with all simple crafts.

The Arabs continued this way during their desert and pre-Islamic period. Then, Islam made its appearance. (The Arabs), took possession of (all) the realms of the world. They deprived the non-Arabs of their rule and took it over. They had their well-known desert attitude and low standard of living. In addition they possessed the thriving religion (of Islam) and that (Muslim) religious severity which is directed against all activities and all the things that are of no utility in one's religion. . . . Therefore (music) was avoided to some degree. In their opinion, only the cadenced recitation of the Qu'ran and the humming of poetry which had always been their way and custom, were pleasureable things.

Then luxury and prosperity came to them, because they obtained the spoils of the nations. They came to lead splendid and refined lives and to appreciate leisure. The singers (now) left the Persians and Byzantines. They descended upon the Hijaz and became clients of the Arabs. They all sang accompanied by lutes, pandores, lyres, and flutes. The Arabs heard their melodious use of sound, and they set their poems to music accordingly.[30]

But even before Islam, Byzantine singers had made their influence felt among the Arabs of the Ghassanid court. Thus in the Umayyad period the same religious indifference and cultural fusion which are discernible in much of Umayyad art helped to produce a new Byzantino-Persano-Arab music.[31]

Islamic law, inextricably linked to religion, began to exist as a formal, organized, and developed legal system a century and one-half after the conquests. That is to say that for 100-150 years the rulers and judges had to supplement the Koranic injunctions in order to cope with problems and practices that were not therein covered. Thus not only were many local legal practices adopted but, more important, Byzantine legal concepts and principles also entered the forming body of Islamic law. The Christian subjects were possessed of developed systems of law which were essentially orientalized Hellenistico-Roman law. The best example is the so-called Syrian Law Book, entitled Laws of Constantine, Theodosius, and Leo, though it includes much more than the title

[30]Ibn Khaldun, II, 401-404.

[31]H.G. Farmer, *History of Arabian Music to the Thirteenth Century* (London, 1929), 76. See also the following works of Farmer: "Musiki," EI_1; *Ancient Arabian Musical Instruments as Described by al-Mufaddal ibn Salama (9th c.)* (Glasgow, 1938); *The Minstrelsy of the "Arabian Nights"* (Bearsden, 1945). H. Husmann, *Grundlagen der antiken und orientalischen Musikkultur* (Berlin, 1961).

indicates, as the urban law it contains is basically Hellenistic. The Syrian Law Book was translated from Greek into Syriac during Byzantine times, and continued to be the basis of Syriac Christian civil practice in the Islamic period. With the linguistic Arabization of these Syriac Christians, the legal code was also translated into Arabic, strong proof that it remained a living document in later times, though it was no doubt synchronized. In this respect it is of great interest that two karshuni versions date from the sixteenth-seventeenth centuries and so we have clear proof of a Byzantine legal form surviving from Byzantine into Ottoman times.[32]

A Muslim judge called upon to decide in a matter for which, in this early period, there was no provision in the Qu'ran obviously had to fall back upon older local precedents. Where ilm was not possible, that is to say judgment based on Qu'ranic legislation, then the judge exercised ra'y, i.e., his own judgment, and in the course of time decisions based on ra'y came to have equal standing with those proceeding from ilm. And so for one and one-half centuries elements from Romano-Byzantine, Talmudic, Sassanid, and eastern ecclesiastical canon law were free to enter into the genesis of Islamic law. The catalytic agents in this legal ferment were the great scores of converts, many of whom were trained in Hellenistic rhetoric, a genre which contained many elements (i.e., modes of reasoning and terminology) conducive to the absorption of Byzantine legal forms.[33] A later jurist, Abu Yusuf, com-

[32]E. Sachau, *Syrische Rechtsbücher*, I (Berlin, 1907), vii-xix. L. Mitteis, *Reichsrecht und Volksrecht in den östlichen Provinzen des römischen Kaiserreichs. Mit Beiträgen zur Kenntniss des griechischen Rechts und der spatrömischen Rechtsentwicklung* (Leipzig, 1891), 30-32, 202-203, 387 ff. See especially the studies of Nallino in *Raccolta,* vol. IV. On the translation into Arabic of Byzantine legal codes (nomos procheiros, the military law, part of the Rhodian naval law, and the Ecloga) consult his article "Libri giuridici bizantini in versioni arabe cristiane dei sec. XII-XIII," *Raccolta*, IV, 324-382.

[33]I. Goldhizer-J. Schacht, "Fikh," EI_2. Schacht, "Pre-Islamic Background and Early Development of Jurisprudence," *Law in the Middle East*, I, *Origin and Development of Islamic Law*, ed. M. Khadduri and H. Liebesny (Washington, 1955), 28-56. A. Abel, "Préambule à un colloque sur l'acculturation," *Correspondance d'Orient. Études*, 5-6 (1964), 9. Nallino, "Considerazioni sui rapporti fra diritto romano e diritto musulmano," *Raccolta*, IV, 85-94; "A proposito di alcuni studi sni diritti orientali," *Raccolto*, IV, 95-213. E. Bussi, *Ricerche intorno alle relazioni fra retratto bizantino e musulmano*, (Pubblicazioni della Universita catolica del Sacro Cuore, ser. sec., scienze giuridiche XLI) (Milan, 1933). For specific instances of Byzantine influence: F.F. Schmidt, "Die Occupatio im is-

mented on this process by which foreign legal practices entered what came to be Islamic law:

> Abu Yussuf held that if there exists an ancient, non-Arab sunna which Islam has neither changed nor abolished, and people complain to the caliph that it causes them hardship, he is not entitled (?) to change it; but Malik and Shafi held that he may change it even if it be ancient.[34]

By the same process which Arabized and Islamized the administration, economics, art, and music, the qadis charged the domain of law with the religious norms of Islam and so the disparate elements of Umayyad legal practice emerged from this crucible in a new Islamic mold.[35]

II. Abbasid Period

By way of conclusion to this first or Umayyad period one cannot do better than paraphrase Gaston Wiet's dictum: The Umayyad Empire was a Neo-Byzantine Empire. Having put down its roots in a rich Byzantine soil, its political, administrative, economic, legal, and artistic life was adapted to Byzantine civilization and all that remained to complete the picture was the accession of the Umayyad dynasty to the throne of the Caesars on the Bosphorus.[36]

At this juncture, however, any further extensive Byzantinization in the above-mentioned domains came to a halt as Arabic and Persian influences gained the ascendancy in the evolution of Islamic civilizations. The linguistic dominance of Arabic and the spread of Islam were in-

lamischen Recht," *Der Islam*, I (1930), 300-353. E. Gräf, *Jagdbeute und Schlachttier im islamischen Recht. Eine Untersuchung zur Entwicklung der islamischen Jurisprudenz* (Bonn, 1955), 194 ff, 202, 210 ff, 224, 340 ff. M.F. Köprülü, "L'Institution du vakouf. Sa nature juridique et son evolution historique," *Vakiflar Dergisi*, II (1942), partie française, 3-48. J. Hatschek, *Der Musta'min. Ein Beitrag zum internationalen Privat- und Völkesrecht des islamischen Gesetzes* (Berlin, 1910). N.J. Coulson, *A History of Islamic Law* (Edinburgh, 1964), 28 ff.

[34]Schacht, "Pre-Islamic Background and Early Development of Jurisprudence," *Law in the Middle East*, I, 35-36.

[35]On the process of Islamic integration, M. Watt, *Islam and the Integration of Society* (London, 1961).

[36]G. Wiet, "L'Empire néo-byzantin des Omeyyades et l'empire néo-sassanide des Abbassides," *Journal of World History*, I (1953-1954), 63-71.

herent in the facts of Arab military and political domination.[37] The replacement of Greek and Persian in the financial diwans by the early eighth century, the Arabization and Islamization of the coinage (as indeed of the inhabitants) are but two of the most spectacular manifestations in the external transformation of the old Byzantine and Sassanid cultures in the Near East. The assertion of these purely Arab factors was not the only reason for the eclipse of Byzantine influence, for non-Arab influences remained strong throughout the centuries of the Abbasid caliphate. But after the Umayyads had failed to capture Constantinople and with their political collapse, the Abbasids eventually moved the center of the huge empire to Baghdad, a site which was located well within the sphere of Sassanid Persian culture. Henceforth the caliphs, court, and upper classes were subjected to and transformed by the culture of their many Persian vezirs, lesser officials, and literati. The effects of this Iranization can be observed even in Egypt, where Byzantine institutions survived in such profusion during the Umayyad period. By the time of Fatimid rule, the fiscal administration in Egypt had begun to conform to Persian forms, and indeed the fiscal administration of the caliphate henceforth bore the external markings of the Persian rather than of the Byzantine tradition.[38]

Inasmuch as the Abbasid period marks a turning away from Byzantine to Persian models and also marks the upsurge of the Arabo-Muslim factors, it is all the more remarkable that cultural Hellenism in the narrowest sense made its greatest impact on Islamic civilization at this time. For the Greek cultural heritage entered the mainstream of Islamic civilization in the ninth and tenth centuries with what important consequences we shall see later. Why was the Greek heritage taken up? How was it transmitted? What part of it passed to the Arabs? And, finally, what were its effects on Islamic civilization?

[37]On the Arabization and Islamization of the former Byzantine and Sassanid provinces: C. Becker, "Egypt," EI_1; *Islamstudien*, I, 210-211. M. Watt, *op. cit.*, *passim*. R. Brunschwig, "Tunis," EI_1. H. Leclercq, *L'Afrique chrétienne*, II (Paris, 1904). C.J. Speel, "The Disappearance of Christianity from North Africa in the Wake of the Rise of Islam," *Church History*, *XXIX* (1960), 379-97. E. Lévi-Provencal, *Histoire de l'Espagne musulmane*, I (Leiden, 1950-1953), 33, 66, 74-76, 81, 155, 289; III, 457-460. W. Marçais, "Comment l'Afrique du Nord a été arabisée," *Annales de l'Institut des études orientales* (Faculté des lettres de l'Université d'Alger), IV (1938), 1-21. A.N. Poliak, "L'Arabisation de l'Orient sémitique," *Revue des études islamiques* (1938), 35-63. B. Spuler, "Der Verlauf der Islamisierung Persiens," *Der Islam*, XXIX (1950), 63-76.

[38]W. Hinz, "Das Rechnungswesen orientalischer Reichsfinanzämter im Mittelalter," *Der Islam*, XXIX (1950), 3-4.

I shall do no more than to broach this question in a brief manner. Obviously the causality is in part one of practicality.[39] The caliphs, who perceived the higher degree of civilization among their subjects, looked to their Christian underlings for doctors and medicine. The practice of medicine was essentially that of Galen, and Galenian medicine was closely linked to philosophy. Astrology, linked to astronomy, also had certain practical applications, so it was thought. It became obvious to the ruling class that Greek knowledge had very profitable applications. Secondly, some of the Greek schools and Greek scholarship continued to exist (indeed that of Alexandria migrated via Antioch and Harran to Baghdad) and the educated classes, especially among the Syriac Christians, but even among the Persian scribes, considered Greek authors and philosophy as essential to cultural life.[40] Greek scholarship, though

[39]For an evaluation of this entrance of Hellenism into Islamic civilization see in particular G. von Grunebaum, "Parallelism, Convergence, and Influence in the Relations of Arab and Byzantine Philosophy, Literature, and Piety," *Dumbarton Oaks Papers*, XVIII (1964), 91-111; also "Islam and Hellenism," *Islam. Essays in the Nature and Growth of a Cultural Tradition* (Menasha, 1955), 159-167. His researches constitute pioneering efforts in the complicated field of Greek borrowings in Arab belles lettres; Ch. IX, "Creative Borrowing. Greece in the Arabian Nights," *Medieval Islam*. In "Greek Form Elements in the Arabian Nights," *Journal of the American Oriental Society*, LXII (1942), 286-292, he lists the following transmissions from Greek into Arab letters:

a) Ecphrasis
b) Syncrisis
c) The "ubi sunt qui ante nos in mundo fuere" motive from Cynic diatribe
d) Hellenistic eulogy over dead animals
e) Biographical maghazi from the Christian martyrology
f) Connection of Arabic mu'ammaun literature and the makrobioi works of Pseudo-Lucian and Phlegon
g) Survival of the Greek mimos
h) Influence of the Cyropaideia
i) Hellenistic impact on poetry in ninth-tenth centuries
j) Classical influence on early Arab autobiography
k) Influence of Greek on Arab rhetoric

See also his "Observations on City Panegyrics in Arabic Prose," *Journal of the American Oriental Society*, LXIV (1944), 61-65.

[40]De Lacy O'Leary, *op. cit., passim*. A. Baumstark, *Aristoteles bei den Syrern von V. bis VIII. Jahrhundert* (Leipzig, 1900). C.A. Nallino, "Tracce di opere greche giunte agli Arabi per trafila pehlevica," *Raccolta*, VI, 285-303. H.W. Bailey, *Zoroastrian Problems* (Oxford, 1943). Siassi, *loc. cit., passim*. M. Meyerhof, *Von Alexandrien nach Baghdad, Sitzungsberichte der Preussischen Akademie der Wissenschaften, Philos.-hist. Klasse* (1930). B. Carra de Vaux, "Tibb," EI_1. The chronicles of Bar Hebraeus and Michael the Syrian give ample evidence for the vitality and continuity of Greek scholarship in northern Syria and eastern Anatolia.

we do not know much about it, was evidently still alive in early Muslim Egypt, Palestine, Syria, Mesopotamia, and of course eventually in Baghdad. Thus the Arabs found themselves in an intellectual milieu which was overpoweringly Byzantine.

The vehicle by which the Greek legacy was transmitted to Islam, as we have already seen, was that of the caliph's Christian subjects, whether Nestorian physicians of the school of Gundeshapur, whether Christian translators from Hira and Syria, or whether Greek subjects on rarer occasions. Though the task of translating the Greek philosophical and scientific works had begun practically with the inauguration of the Abbasid caliphate (and even before), its center became the famous Bayt al-Hikma (house of wisdom), a combination library and translation center established in Baghdad in the reign of al-Mamun (813-33). Some works were translated directly from Greek, and others via Pahlevi, but the bulk of the Greek corpus which entered Arabic did so via Syriac translations of the Greek originals. Manuscripts and scholars did occasionally come from Constantinople, and some eastern scholars are reported to have gone to Byzantium to learn Greek. But the Syriac Christians, who had maintained an active and lively study of the Greek texts, who were often trilingual, and who were inhabitants of the caliphate, formed the logical link in the transmission of Greek knowledge.

The translated works, covering five categories (general knowledge, medicine and auxiliary disciplines, science, pure and applied mathematics, and philosophy), constituted a distinct body as is evident in such "bibliographies of the translators" as were composed by al-Nadim (987) and al-Kift (1172-1248). By and large the authors who were translated were those still studied in late antiquity and early Byzantium. All Aristotle's works, save his dialogues and *Politics*, became known to the Muslims. Arab scholars also knew translations of Plato's *Timaeus, Republic, Laws, Phaedo, Crito*, and all the titles of his works are mentioned in Arab works. But Plato and Aristotle were viewed in the manner of the Neoplatonists. Works of the Neoplatonists Porphyry and Proclus, as well as hermetic writings, were translated, and 129 treatises of Galen were translated (compare this with the fact that the Latin author Symmachus lists only one of Galen's works in his *Constitutiones*). There is no point in a prolonged list of the translations, a list available to all in Steinschneider's remarkable monograph, but one should emphasize the fact that the Arabs took that part of the heritage which was alive in the Byzantine and Persian provinces of the sixth-

seventh centuries.[41] Thus there is little of the pre-Socratics or of the early and middle Stoics. Obviously Greek poetry was of little interest either because of the inherent difficulties of meter and possibly because of the loss of language beauty inevitable in translating any poet, or else because Arabic was considered to be the language par excellence for poetic expression.[42] Byzantine and ancient Greek historiography suffered the same fate as poetry.

The effects of this large-scale absorption of the Greek intellectual legacy were extremely important in the structure of Islamic civilization. In many respects the absorption of Greek philosophy, science, mathematics, musical theory, medicine, and other disciplines by Islamic civilization is parallel to the process by which the same heritage constituted one of the basic elements of medieval Latin and Byzantine civilizations. The common element is this late Greek heritage as it was adapted and understood by Augustine, Origen, St. Basil, John Philoponus and by their Muslim counterparts some centuries later. Thus these societies not only had a common Judaeo-Christian religious basis, but also a Greek intellectual heritage at the basis of their cultures. There is neither time nor space, nor am I qualified, to follow the independent course of these Greek-inspired disciplines in the hands of the Muslims. I should like, however, to point out *en passant* one important effect which this Greek legacy had for Islamic civilization in the realms of philosophy and theology.

Greek philosophy had proceeded largely on the assumption of the power of human reason to understand man and the universe. But

[41]M. Steinschneider, *Die arabischen Übersetzungen aus dem Griechischen* (Graz, 1960). F. Rosenthal, *op. cit., passim.* R. Paret, *Der Islam und das griechische Bildungsgut* (Leiden, 1941). F. Gabrieli, "Recenti studi sulla tradizioni greca nella civilta' musulmane," *La parola del passato,* LXV (1950), 147-160. Paret, "Notes bibliographiques sur quelques travaux recents consacrés aux premières traductions arabes d'oeuvres grecques," *Byzantion,* XXIX-XXX (1959-60), 387-446. J. Kraemer, *Das Problem der islamischen Kulturgeschichte* (Tubingen, 1959), ch. V-VI. G. Bergsträsser, *Hunain ibn Ishaq und seine Schule* (Leiden, 1913). M. Plessner, "Hermes Trismegistes and Arab Science," *Studia Islamica,* II (1954), 45-59. Also the articles "Aristutelis" and "Aflatun" by Walzer, in EI_2.

[42]F. Rosenthal, *op. cit.,* 35. But translations of Homer from Greek into Syriac were made by the eighth century Syrian and court official Theophilus of Edessa, Bar Hebraeus, *The Chronography of Gregory Abu'l Faraj the Son of Aaron, the Hebrew Physician commonly known as Bar Hebraeus being the First Part of his Political History of the World,* tr. by E.A.W. Budge (hereafter Bar Hebraeus), I (London, 1932), 116.

Judaism, Christianity, and after them Islam were based on an implicit priority of prophecy, of revealed knowledge. Thus centuries before the appearance of Islam the antagonism of human reason and prophetic revelation had become the concern of Philo, Origen, John Philoponus and others. The relation of philosophy and revealed religion also became a problem for Muslim intellectuals as they suddenly discovered the rich inheritance of Greek antiquity, and so they sought some sort of harmony.

In the ninth century al-Kindi declared that philosophy and theology constitute two distinct bodies of knowledge that followed separate lines of development. Therefore they could co-exist without impinging upon one another. At the extreme and on the question of philosophy and theology was the philosopher ar-Razi (865-923 or 932) who had little use for religion, opting for philosophy and reason as the real keys to understanding. Diametrically opposed were those theologians who not only insisted on the superiority of revealed to philosophic truth but who would not even admit the utility of philosophical logic as a means of supporting revealed truth.

However theologians could not completely ignore logic in theological considerations and so the Mutazilites early initiated the discussion of Islamic dogma in terms of Greek philosophical concepts, though they of course accepted the details of Islamic dogma. The tendency toward a logical or rational defense of sunni theology crystallized first in al-Ashari (late ninth-early tenth c.), who asserted the superiority of revelation to reason and the support of revelation by reason; and second in al-Ghazzali (+1111) who systematically introduced a wider use of Aristotelian syllogistic logic in the defense of Muslim theology. Thus Islam, in order to retain its essence and flavor, had to make a scholastic compromise with Greek philosophy. The clash of Greek rationalism with Judaic monotheism is thus common to Islam, Byzantium, and the Latin West.[43]

[43]M. Watt, *Islamic Philosophy and Theology* (Edinburgh, 1962), 44-89, 93-142. R. Walzer, *Greek into Arabic. Essays on Islamic Philosophy* (Cambridge, 1962), 2-21. H. Corbin, *Histoire de la philosophie islamique. I Des origines jusqu'à la mort d'Averroïs (1198)* (Paris, 1964). Arnaldez, "Falsafa," EI_2. For other questions of Byzantine influence on Muslim theology: C. Becker, "Christliche Polemik und islamische Dogmenbildung," *Islamstudien*, I, 432-449. A. Abel, "La polemique damasceniènne et son influence sur les origines de la theologie musulmane," *L'Elaboration de l'Islam* (Paris, 1961). T.J. de Boer, *The History of Philosophy in Islam* (London, 1903). Of particular importance are the papers

The question of Byzantine influence in Arab painting will perhaps form a convenient, transitional subject which will lead us in this brief survey from the second or Abbasid period to the third or Turkish period. These Byzantine influences on Arab painting readily lend themselves to transitional characterization because though the Byzantine influence on Arab painting seems to have been renewed as a result of the Arab translations of illuminated Greek texts in Abbasid times, this Byzantine influence on the Arab art of the book is most apparent in the late twelfth and early thirteenth centuries, thus well into the Turkish period. You will recall that the two major elements in Arab painting during the Umayyad period were Byzantine and Sassanid. With the general Persian orientation of the Abbasid period, however, the Iranian element predominated. With a new development in the art of Arab illumination Byzantine iconographic types and many particulars of Byzantine style produced that which Richard Ettinghausen has described as "Byzantine art in Islamic garb." This is especially, though not exclusively, apparent in those Greek texts translated into Arabic which also had illuminations. Two Arab manuscripts of the early thirteenth century (located it is significant in the Topkapu Sarayī Müzeisi), a translation of *Dioscurides* and the *Choicest Maxims and Sayings* by the eleventh century author al-Mubashir, employ illuminatory apparati and techniques which are strikingly Byzantine. Both contain double frontpieces depicting the author (in the one case Dioscurides, in the other the seven wise men of antiquity); clothing, treatment of folds, gold background, plasticity of the face, etc., are characteristically Byzantine. Byzantine features are also visible in mechanical works such as the *Book of Knowledge of Mechanical Devices* by al-Jaziri, an illuminated copy of which from the Topkapu Sarayī Müzeisi dates to 1254. But the Byzantine trend in book illumination was so pervasive that works of non-Greek origin such as the thirteenth century manuscript of al-Hariri's *Maqamat* (Bib. Nat. Arab 6094, 1222) and even Qu'ranic manuscripts, underwent its influence.

Thus early Byzantine or late classical origins form the basic element of unity in what has been termed Arab, as in contradistinction

delivered at the first Giorgio della Vida Conference, University of California, Los Angeles in the spring of 1967. The subject of the conference was "Logic and Islam."

to Persian, painting, even when the former has copied Sassanid models.[44]

III. The Turkish Period

The discussion of Arab painting has brought us well within the chronological confines of the third period of Byzantine influence upon Islamic civilization, that is the period of the eleventh to the seventeenth centuries and the period of the Seljuks, Beyliks, and Ottomans. Once more I should like to preface my remarks by pointing to three guidelines. First the Turks took their formal culture from Islam and more specifically from the Iranian corner of the Islamic world. Second, the new Turco-Islamic states of which I am speaking were established in

[44]Ettinghausen, *op. cit.*, 59-80. Ettinghausen, *Turkish Miniatures* (New York, 1965), 8-9, on the Byzantine affiliations of the miniatures in Ms. *Bibliotheque Nationale Persan* 174, executed in Aksaray in 1271 and dedicated to the Seljuk sultan. Also E. Blochet, *Les enluminures des manuscrits orientaux de la Bibliotheque Nationale* (Paris, 1926), plates 18-19; *Musulman Painting XIIth-XVIIth century* (London, 1929), plate xxxiv. Plates lv and lvi from the Ms. of Rasid ed Din's history have angels done in the Byzantine manner. Greek painters were active in the domains of the Anatolian Seljuks during the thirteenth century as is evident from the frescoes of the troglodyte churches. Eflaki, *Les saints des derviches tourneurs* tr. C. Huart, I (Paris, 1918-1922), 333-334; II, 69, and *passim*, mentions Greek painters who were active at the Seljuk court as well as in the dervish circle of Celal al-Din Rumi, and Greek architects and masons. Bar Hebraeus, *Chronographia*, I, mentions a Greek painter who went to Tabriz to decorate the chapel of a Byzantine princess who had married the local Muslim lord. Bar Hebraeus then hired the Greek painter to decorate Syriac churches. F. Babinger, "Mehmed's II. Heirat mitt Sitt-Chatun (1449)," *Der Islam*, XXIX (1950), 230-231, and plate 7 reproduces a portrait of Sitt Hatun (wife of Mehmed II) done by a Greek painter. It is in a Greek manuscript of Ptolemy's *Geography* probably sent by Melik Arslan Dhu'l Qadir-oglu (1454-1465) to his brother-in-law Mehmed II. The manuscript, which originally contained a picture of Melik Arslan as well, is Cod. Marc. Gr. 516. Timur, as a result of his Anatolian campaigns, transported numerous Greek, Armenian, and Turkish silversmiths, masons, and gunsmiths from Anatolia to Samarkand, Gonzales de Clavijo, tr. Le Strange, *Embassy to Tamerlane 1403-1406* (London, 1928), 288. The vitality and influence of Byzantine painting during the twelfth-thirteenth centuries is perhaps best understood as a phenomenon which penetrated both Europe and parts of the Near East. On this artistic penetration by Byzantium see the recent studies of K. Weitzmann, "Various Aspects of Byzantine Influence on the Latin Countries from the Sixth to the Twelfth Centuries," *Dumbarton Oaks Papers*, XX (1966), 1-24; "Icon Painting in the Crusader Kingdom," *Dumbarton Oaks Papers*, XX (1966), 49-83; E. Kitzinger, "The Byzantine Contribution to Western Art of the Twelfth and Thirteenth Centuries," *Dumbarton Oaks Papers*, XX (1966), 25-47.

the heart and homeland of Medieval Hellenism. Third, the Turkish conquerors, like the Arabs who conquered the Near East, were predominantly nomads and they were sedentarized (like the Arab bedouins) in a Byzantine milieu. Having exhausted the limits of your patience, as well as the time limits set by the chairman, I shall touch briefly and at random upon this enormous subject, only to illustrate this Byzantine influence on the level of formal institutions and on folk culture.

The similarities between the Ottoman and Byzantine Empires are so numerous that the drawing of parallels is an old game in which practically all Byzantinists and Ottomanists have indulged.[45] There are basically three possible explanations to these many parallels. First, the cores of the two empires included Anatolia and the Balkans and so there were similarities in geographic, climatic, and ethnographic configurations. As a result, the problems of government which emperors and sultans encountered were similar and these elicited similar responses and solutions. This does not, however, explain everything. For instance one may look at the different attitudes which the dominant ethnic groups of Byzantium and the Ottoman Empire had toward the sea. A second explanation for the similarity lies in a direct borrowing by the Turks from the Byzantines. As in the case of the Arabs in the newly conquered Byzantine provinces, the Turks borrowed from Byzantine provincial peoples such as the Armenians, Syrians, and Slavs, as well as from the Greeks. But unlike the Arab example where the role of the non-Greek Christians was preeminent, in Asia Minor a mass conversion

[45]M.F. Köprülü has generally taken a negative view on the influences exercized by Byzantine institutions. "Bizans müesseselerini Osmanli müesseselerini tesiri hakkinda bâzi mülahazalar," *Turk Hukuk ve iktisat tahiri mecmuasi*, I (1931), 242 ff; *Alcune osservazioni intorno all' influenza delle instituzioni bizantine sulle istituzioni ottomane* (Rome, 1953); "Les institutions byzantines ont-elles joué un role dans la formation des institutions ottomanes?" *Bulletin of the International Committee of Historical Sciences*, VI (1933), fasc. 23, 297-302. The affirmative view is expressed in the following works: E. Taeschner, "Eine neue türkische Publikation zur Wirtschaftsgeschichte," *Orientalistische Literaturzeitung*, XXXVI (1933), 482-490. N. Iorga, *Byzance après Byzance* (Bucharest, 1935). Ph. Koukoules, *Vizantinon vios kai politismos*, 5 vols. (Athens, 1948-1952); "Vizantina kai ouhi tourkika ethima," *Byzantinische Zeitschrift*, XXX (1929-1930), 192-196. B. Cvetkova, "Influence exercée par certains institutions de Byzance et des pays balkaniques du Moyen Age sur le systeme féodal ottoman," *Byzantino-Bulgarica*, I (962), 237-257. R. Guillaume, "Institutions byzantines-institutions musulmanes," *Annales d'histoire économie et sociale*, VI (1934), 426-427. G. Arnakis, *Oi protoi Othomanoi* (Athens, 1947), 101-107.

of and intermarriage with the Greeks became the basis for a strong Byzantine coloration of Turkish Muslim society.[46] Conversion and intermarriage were also significant in the Balkans but they never reached the vast proportions which they attained in Anatolia. As a result a great many basic facets of Ottoman society had a Byzantine-Balkan base with a veneer of the Turkish language and the Islamic religion. A third route whereby similarities may have arisen was the more circuitous one by which the Byzantine elements already assimilated by Islamic civilization in the Umayyad and Abbasid periods were taken over by the Turks in their Islamized forms when the Turks entered the lands of the Caliphate and were Islamized. Thus elements of Greek philosophy, science, mathematics, geography, medicine, etc., were part of this Graeco-Islamic heritage which the Turks received. It is no accident that many of the manuscripts dealing with these subjects are to be found in Turkish libraries today.

Unlike the Arabs of the first Muslim century, the Seljuks and Ottomans inherited a highly developed imperial, administrative, and military

[46] The author is now preparing a lengthy study of this phenomenon in Anatolia, "The Decline of Medieval Hellenism and the Process of Islamization in Asia Minor, 11-15th Centuries." There is no systematic description of Islamization in the Balkans, but one may consult the following: P. Petrov, *Asimilatorskata politika na turksite zavoevateli. Sbornik ot dokumenti za pomokhamedanchvaniia i poturchvaniia (XV-XIX v)* (Sofia, 1964); F.W. Hasluck, *Christianity and Islam under the Sultans*, I-II (Oxford, 1929). For the conversions effected through the devshirme and service in the government, H.S. Kissling, "Das Renegatentum in der Glanzzeit des osmanischen Reiches," *Scienta* (January, 1961), 6, series 55; I.H. Uzunçarsili, *Osmanli devleti teskilatindan kapukulu ocaklari*, I-II (Ankara, 1943-1944). Extensive conversion is implied in the cadi registers of Sofia, Thessaloniki, Berroia and Naousa; G. Galabov and H. Duda, *Die Protokollbücher des Kadiamtes Sofia* (Munich, 1960); I.K. Vasdravelles, *Istorika Archeia Makedonias. A' Archeion Thessalonikes* (Thessalonike, 1952); *Archeion Veroias-Naouses (1598-1886)* (Thessaloniki, 1954).

The effect of the more extensive nature of Islamization in Asia Minor is discernible in the registers of the taxable hearths of the early sixteenth century.

	Muslim	Christian	Jew	Total
Asia Minor less Cilicia	903,997	77,869	559	982,425
Balkans less C'ople	194,958	832,707	4,134	1,031,799
Total	1,098,955	910,576	4,693	2,014,224

Ö. Barkan, "Essai sur les données statistiques des registres de recensement dans l'Empire Ottoman aux XVe et XVIe siècles," *Journal of the Economic and Social History of the Orient*, I (1957), 20, 32.

apparatus from Islamic civilization.[47] Though many of these institutions had evolved from Byzantine and Persian models, by the time the Turks had adopted them they had been thoroughly stamped by the integrating forces of Islam. Nevertheless there was a considerable margin within which Byzantine forms exercized a very definite influence. For basically the Turkish sultans had to apply this apparatus to a Christian milieu,

There is no agreement as to the proportion between converts and Turkish Muslims in these figures for the Muslim hearths in the Balkans. Barkan, "Les déportations comme méthode de peuplement et de colonisation dans l'empire ottoman," *Revue de la faculté des sciences économique de l'Université d'Istanbul*, XI (1949-50), 67-131, and M.T. Gökbilgin, *Rumeli'de Yürükler, Tatarlar ve Evlad-i Fatihan* (Istanbul, 1957), both have emphasized the numbers of Turkish, especially nomadic, settlers in the Balkans. According to Barkan's statistics (for the early sixteenth century) of the 194,000 Muslim hearths in the Balkans 37,435 represented Yuruk or nomad hearths, therefore only slightly more than 19% of the Muslim population. If we multiply by the number 5, as Barkan does, the nomadic hearths yield approximately 187,175 individuals. Gökbilgin's study results in the following breakdown for the tribes.

Tribe		*Date*	*Ocaks*
Naldöken		1543	196
Tanridagi		1543	328
Selanik		1543	500
Ofcabolu		1566	97
Vize		1543	105
Kocacik		1543	132
Tatars			
Aktav	21 ocaks	1543	88
Tirhala	12		
Yanbolu	34		
Bozapa	21		
			1,446 ocaks
			x 25 men/ocak
			36,150 men or hearths

Thus Gökbilgin's number of ocaks and hearths would seem to coincide with the figures of Barkan, but he greatly inflates them (for instance he suggests 100,000 population for the Tanridagi in the late sixteenth cenutry). Inasmuch as the Ottoman statistics indicate that the mass sedentarization of these nomads took place in the late sixteenth and early seventeenth centuries, the tax figures for the early sixteenth century show the nomads to be a minority of the Muslim population. It is highly probable that even after account has been taken of the sedentarization of a small portion of these nomads during the late fourteenth and fifteenth centuries, and also of the migration of a number of sedentary Muslim Turks to the Balkans, a large portion of the Muslim hearths in the tax registers represents converted Balkan populations. A. Vakalaopoulos, *Istoria tou neou Ellenismou*, II_1 (Thessaloniki, 1964), 44-49; J. Kabrda, "Les problèmes de l'étude de l'histoire de la Bulgarie a l'époque de la domination turque," *Byzantino-Slavica*, XV (1954), 197-198.

[47]I.H. Uzunçarsili, *Osmanli devleti teskilatina medhal* (Istanbul, 1941).

and so the Turkish sultanate in Anatolia and the Balkans was markedly different from the Mameluke sultanate in Egypt and the Safavid rule in Persia.[48] In Anatolia and the Balkans Muslim theoria had to adjust to Byzantine praxis. Basic is an understanding of what happened to the land regime, for the land as the basis of the state's fiscal sinews determined a great deal. When the Seljuks entered Asia Minor they occupied and eventually settled in an agricultural environment which had adhered to centuries of Byzantine regulations. The following disparate and disjointed information is a strong indication that Turkish agriculture was essentially Byzantine agriculture. In the twelfth century the various Turkish princes in Anatolia recolonized their devastated lands with Greek, Armenian, and Syrian farmers, often kidnapping entire villages and towns in Byzantine and Armenian lands. Not only did they resort to enslavement of populations in order to restore agriculture to their domains, but they even fought one another for possession of these Christian farmers. We know little about the tax system in this early period, but an anecdote of Nicetas Choniates gives a very interesting insight as to the relations of the Byzantine and Seljuk agrarian tax systems. At the end of the twelfth century, he reports, the sultan of Konya kidnapped 5,000 villagers from Tantalus and Caria in the Maeander valley, and resettled them about Akshehir-Philomelium. He had careful registers made of these Greeks and their families, gave them seed and livestock, five years of tax immunity, and then ordered that after this period had lapsed they were to pay exactly the same taxes which they had previously paid the Byzantine authorities.[49] In thirteenth century Arab vakuf documents from Anatolia, the terminus technicus used to define the boundaries between private lands is sunor, or the Byzantine sunoron.[50] Inalcik in a careful study has pointed out the probability that the Ottoman taxes, çift resmi, and nam çift, are not only direct translations of the Byzantine zeugarion and boïdaton, but that the tax sums associated with these are the same in late Byzantine and early Ottoman tax practice.[51] This conservative nature of Ottoman tax practice is clear in other

[48]Taeschner, *loc. cit.*, 486-487.

[49]Nicetas Choniates, *Historia* (Bonn, 1835), 656-657. See also C. Cahen on the general question of the Seljuk tax system, "Le regime de la terre et l'occupation turque en Anatolie," *Cahiers d'histoire mondiale*, II (1955), 566-580.

[50]O. Turan, *Türkiyede Selçukulari hakkinda resmi vesikalar, metin, tercüme ve arastirmalari* (Ankara, 1958), 27, 41 of the texts in part II.

[51]H. Inalcik, "The Problems of the Relationship between Byzantine and Ottoman Taxation," *Akten des XI. Internationalen Byzantinisten-kongresses. Munchen 1958* (Munich, 1960), 237-242.

areas where the conquerors simply preserved in slightly altered form the tax structure which they found. Thus Ottoman agrarian legislation of the sixteenth-seventeenth centuries preserves certain Byzantine practices . . . angarya, irgadiya,[52] and Greek tax farmers are in evidence in Anatolia and the Balkans from the thirteenth-fifteenth centuries.[53] The remarkable philological studies of Andreas Tietze have isolated about 300 Greek words which remain today in the spoken Turkish of Anatolia. The fact that most of these have to do with agricultural and rural life bring additional proof in support of the theory that Ottoman agrarian life in Asia Minor was strongly influenced by that of the Byzantines, and the same holds true for the Balkans.[54]

Time does not permit more than a passing reference to the Byzantine numismatic and sigillographic[55] influence on their Turkish counterparts, to the survival of a Byzantine scribal class among Seljuks, beyliks, and

[52]W. Hinz, "Das Steuerwesen Ostanatoliens," *Zeitschrift der Deutsche morgenländische Gesellschaft*, C (1950), 177-201. For the problem of the continuity of the commercium under Seljuks and Ottoman, S. Lampros, "E Ellenike os episemos glossa ton soultanon," *Neos Ellenomnemon*, V (1908), 51.
For other taxes of Byzantine or Balkan origin, B. Svetkova, *Izvenredni danetsi i derzhavni povinnosti v Bulgarskite zemli pod turska vlast* (Sofia, 1958).

[53]N. Beldiceanu, *Les actes des premiers sultans conservées dans les manuscrits turcs de la Bibliothequen Nationale à Paris*, I (Paris, 1960), 113, 146. Bar Hebraeus, *Chronographia*, I, 334. M.T. Gökbilgin, *XV-XVI asirlarda Edirne ve Pasa Livâsi. Vakiflar-mülkler-mukataalar* (Istanbul, 1952), 89, 93, 102, 106, 107, 113, 124, 127, 134, 135, 137, 151, 152, 153, gives numerous examples of Greeks and converts who were recipients of mukataas. The name Palaeologus is prominent.

[54]On this subject the studies of A. Tietze are fundamental, "Griechischen Lehnwörter im anatolischen Türkisch," *Oriens*, VIII (1955), 204-257; "Griechischen Lehnwörter im anatolischen Türkisch," *Actes X. Congres International d'Études Byzantines*, 1955 (Istanbul, 1957), 295 ff; "Einige weitere griechische Lehnwörter im anatolischen Türkisch," *Németh Armagani* (Ankara, 1962), 373-388. The importance of the indigenous agricultural traditions in the Balkans is much more obvious.

[55]P. Casanova, "Numismatique des Danishmendites," *Revue Numismatique*, XII (1894), 307-312, 433-460; XIII (1895), 389-402; XIV (1896), 210-230, 306-315. W. Hinz, "Hyperper und Asper. Zur vorosmanischen Wahrungskunde," *Der Islam*, XXXIX (1964), 79-89. F. Babinger, *Reliquienschacher am Osmanenhof im XV. Jahrhundert. Zugleich ein Beitrag zur Geschichte der osmanischen Goldprägung unter Mehmed II. dem Eroberer. Bayerische Akademie der Wissenschaften, philosophisch-historische Klass. Sitzungsberichte*, Jahrgang, 1964, Heft 2 (Munich, 1956). J. Karabacek, "Gigliato des jonischen Turkomanenfürsten Omar-beg," Numismatische Seitschrift, II (1870), 525-538; "Gigliato des karischen Turkomanenfürsten Urchan-bej," *Numismatische Zeitschrift*, IX (1877), 200-215.

Ottomans,[56] to Turkish borrowings in military[57] and maritime life,[58] to the appearance of Neo-Byzantinisms (i.e., Phanariots and Patriarchate) in the formal Ottoman administrative structure,[59] above all to the great influence of Byzantine traditions and craftsmen in architecture, painting,[60] commerce (panayīr) and the guilds,[61] textile manufacture,[62] and

[56]Lampros, *loc. cit., passim.* H. Duda, *Die Seltschuken geschichte des Ibn Bibi* (Copenhagen, 1959), 67. Bartholomaeus Georgiewiz, *The Offspring of the House of Ottomanno* (London, 1570), under Iaziti (yazici). E.A. Zachariadou, "Mia hellenike syntheke tou Chidir Aydinoglu," *Byzantinische Zeitschrift*, LV (1962), 254-265. A. Bombaci, "Nuovi firmani greci di Maometi II," *Byzantinische Zeitschrift*, XLVII (1954), 298-319. Chalcocondyles (Bonn), 501. Inalcik, "Ottoman Methods of Conquest," *Studia Islamica*, II (1954), 111.

[57]R. Anhegger, "Martoloslar hakkinda," *Türkiyat mecmuasi*, VII-VIII (1940-42), 282-320. H. Inalcik, "Gelibolu," EI_2 The question of the origin of the timar and its relation to the Byzantine pronoia have been much discussed without any definite solution. The nature of both and the conditions under which they were held are strikingly similar, as is indeed the very meaning of both words. Deny, "Timar," EI_1 derived the timar from the pronoia and other studies have similarly derived the timar or else have pointed to the strong parallels: V.P. Mutafcieva, "Sur le caractère du timar ottoman," *Acta Orientalia*, IX (1959), 55-61; G. Ostrogorsky, *Pour la féodalité byzantine* (Brussels, 1954), 257; V. Cubrilović, "Oko proucavanja srednjovekomog feudalizma (povodom dela G. Ostrogorsky Proniji," *Istor. Casopis*, III (1952), 189-203; S. Novaković, "Pronijeri i baštinici (spahiye i citluk sahibije). Prilog k istoriji nepokretne imovine u Srbiji XIII do XIX v," *Glas*, I (1887), 68 ff. On Christian holders of timars, Inalcik, "Timariotes chrétiens en Albanie au XVe siecle," *Mitteilungen des osterrichischen Staatsarchivs* IV (1952), 120-128; "Arnawutluk," EI_2; *Suret-i defter-i Sancak-i Arnavid* (Ankara, 1954).

[58]A. Tietze and H.R. Kahane, *The Lingua France in the Levant* (Urbana, 1958).

[59]Th. Papadopoullos, *Studies and Documents Relating to the History of the Greek Church and People under Turkish Domination* (Brussels, 1952); M-P. Zallony, *Traité sur les princes de la Valachie et de la Moldavie, sortis de Constantinople, connus sous le nom: Fanariotes etc.*, (Paris, 1830). Iorga, *op. cit.* I. Gottwald, "Phanariotische Studien," *Leipziger Viertaljahrschrift fur Südosteuropa*, V (1941).

[60]S. Eyice, "Bizans-Islam-Türk sanat münasebetleri," *V. Türk Tarih Kongresi* (Ankara, 1960), 298-302. "Hamman," EI_2, on Byzantine influences in the architectural details of the Ottoman baths. On specific examples of Byzantine architectural influences: J.M. Rogers, "The Cifte Minare Medrese at Erzerum and the Gök Medrese at Sivas. A Contribution to the History of Style in the Seljuk Architecture of Thirteenth Century Turkey," *Anatolian Studies*, XV (1965), 76; "Annual Report," *Anatolian Studies*, XV (1965), 12, on the Byzantine round arch, masonry, and construction in Iznik and Bursa. See also note 44 above.

[61]G. Meyer, *Türkische Studien. I Die griechischen und romanischen Bestandtheile im Wortschatze des Osmanisch-Türkischen. Sitzungsberichte der philosophisch-historischen Classe der kaiserlichen Akademie der Wissenschaften*, CXXVIII, I (Vienna, 1893), 1-96. N. Beldiceanu, *Les actes des premiers sultans*

finally to Byzantine cuisine and domestic architecture in Turkish dress.[63]

Just a few words on Byzantine influences on the level of folk culture will suffice to indicate how widespread this was. The basis for this phenomenon is the very intense symbiosis between Greeks and Turks in Asia Minor which proceeded from the great conversions and widespread intermarriage and which also took place between Christians and Muslims in the Balkans. One generation after the battle of Manzikert this process is already visible . . . Anna Comena speaks of three ethnic groups . . . the Greeks, the barbarians, and the mixo-barbaroi.[64] Religious conversion attained its high tide in the late thirteenth and fourteenth centuries and by the fifteenth-sixteenth centuries Anatolia was approximately 90 percent Muslim.[65] But though Islam had effaced Christianity, it was only the most recent coating of religious varnish to cover the population of Anatolia, and the Christian coloration of the previous coating is all to discernible. On the folk level the converts brought Christianity with them into the folds of Islam and produced a religious syncretism.[66] This is clear in such Christian practices as icon worship and pilgrimages to Christian shrines by Muslims, double sanctuaries, equation of Muslim and Christian saints, local demonology, the sacred character of medicinal earth, blessing of the waters, all of which appear within popular Islam. I wish to pick out only one of these Chris-

conserves dans les manuscrits turcs de la Bibliotheque Nationale à Paris (Paris, 1964), II, *Règlements miniers, 1390-1512*. F. Taeschner, "Das bosnische Zunftwesen zur Türkenzeit (1463 bis 1878)," *Byzantinische Zeitschrift*, XLIV (1951), 551-559. For a specific instance of a guild consisting of Christians and Muslims and converts, among the officials of which were also to be found some converts, G. Galabov and H. Duda, *Die Protokollbücher des Kadiamtes Sofia* (Munich, 1960), 215.

[62]*Marco Polo*, ed. A.C. Moule and P. Pelliot, I (London, 1938), 95, on the dominant role of the Greeks and Armenians in the carpet weaving industry of thirteenth century Anatolia. Ibn Battuta, *The Travels of Ibn Battuta*, tr. H.A.R. Gibb, II (Cambridge, 1962), 425, on the Greek textile workers of fourteenth century Ladik in western Anatolia. Bar Hebraeus, I, 408, mentions the Christian weavers of Malatya.

[63]Koukoules, *op. cit., passim*.

[64]*Anna Comnena*, ed. B. Leib, III (Paris, 1937), 205. Nicephorus Gregoras, III (Bonn, 1855), 509, for fourteenth century Bithynia.

[65]H. Gelzer, "Ungedruckte und ungenugend veroffentlichte Texte der Notitiae episcopatum," *Abhandlungen der bayerischen Akademie der Wissenschaften*, XXI (1901), 630-631. O.L. Barkan, "Essai sur les données statistiques des registres de recensement dans l'empire ottoman aux XVe et XVIe siecles," *Journal of the Economic and Social History of the Orient*, I (1958), 20.

[66]F.W. Hasluck, *Christianity and Islam under the Sultans*, I-II (Oxford, 1929).

tian practices which became widespread in the folk practices of Islam, the Christian practice of baptism.

A series of sources, reaching from the twelfth to the seventeenth centuries, reveals that many Turks had their infants baptized by Greek priests, "for," says one authority, "the Agarenes suppose that their children will be possessed of demons and will smell like dogs if they do not receive Christian baptism . . . they . . . invoke baptism . . . as a remedy or magical charm."[67] It is interesting that baptism was not restricted to the lower classes of Anatolian Muslims, but it included even Seljuk sultans and princes of the Karamanid and Ramazan dynasties.[68] De Busbecq indicates that Muslims continued to baptize their children in the sixteenth century,[69] and the chu[illegible] in a decision of the seventeenth century threatened to defrock any Greek priest who continued to baptize the children of the Turks.[70] The adoption of so patently a Christian practice as baptism is strong indication of the great quantity of Byzantine practices which passed into Turkish society.[71]

[67]Rhalles and Potles, *Syntagma ton theion kai ieron kanonon*, II (Athens, 1852), 498. Repeated by the fourteenth century jurist Armenopoulos, *Patrologia Graeca*, CL, 125.

[68]Pachymeres, I (Bonn, 1835), 131, 263-268. Nicephorus Gregoras, I (Bonn, 1855), 95. Bertrandon de La Brocquière, *Le Voyage d'outremer de Bertrandon de la Brocquière*, ed. C. Schefer (Paris, 1892), 90.

[69]De Busbecq, *The Turkish Letters of Ogier Ghiselin de Busbecq* tr. E.S. Forster (Oxford, 1927), 136-137.

[70]F. Kidrić, Bartholomaus Gjorgevic: *Biographische und bibliographische Zusammenfassung* (Vienna-Prague-Leipzig, 1920), 15. Hasluck, *op. cit.*, I, 32-34. Koukoules, *op. cit.*, IV, 54-55. W.M. Calder, "A Journey round the Proseilemmene," *Klio*, X (1910), 233 ff, gives an interesting example of the metathesis which baptism underwent among the population of Ladiq. The inhabitants (many of whose ancestors were originally converts to Islam in past centuries) immersed their children in an old Christian ayasma (miraculous spring prominent in Greek Orthodox Christianity) outside Ladiq so that their children might not become infidel Christians!

[71]A comparative study of Greek, Armenian, and Turkish folklore is much needed and will no doubt greatly illuminate the historical relations of Byzantine and Turkish societies. One of the more famous survivals of Byzantine folklo[illegible] which has absorbed into Turkish folklore is the legend of kizil elma, the red golden apple. In the beginning the legend arose about the equestrian statue Justinian the Great located near St. Sophia and described by Procopius in [illegible] *De Aedificiis*, I, ii, 1-12. Justinian held in one hand a sphere (with cross) as symbol of world dominion and the other hand was raised toward Asia as though he had just repulsed the Asiatic foe (Persia). Byzantine legend asserted that the fall of the sphere from the statue's hand in the fourteenth century indicated that political dominion was slipping from the hands of the Greeks and would pass to the Turks. Thus the 'golden sphere' as a symbol of world power passed into Turkish

I have tried to present you with a fleeting glance of that process by which medieval Hellenism contributed to the formation of Islamic civilization. Byzantine civilization was sufficiently vital at the time of the Arab conquest to determine much of the administrative structure, society, and economic life of the early Arab empire. At the end of this first cycle of Byzantine epibiosis the forces of Iranism, Arabism, and Islam replaced or transmuted Byzantine forms in government and society. Simultaneously, however, the new Muslim society, by virtue of mass conversions and confronted with this sophisticated society, was constrained to adopt and adapt Byzantine culture. The result was the fortleben of Hellenism in the very intellectual foundations of Islamic civilization. In the final cycle Byzantium exercized both a direct and indirect influence on Turco-Muslim society. Because the Turkish polity

folklore where it variously symbolizes Constantinople, Rome, Budapest, etc. See W. Heffening, "Die türkischen Transkriptionstexte des Bartholomaeus Georgievitz aus den Jahren 1544-1548. Ein Beitrag zur historischen Grammatik des Osmanisch-Türkischen," *Abhandlungen fur die Kunde des Morgenlandes*, XXVII, 2 (Leipzig, 1942), esp. 27-37. R.M. Dawkins, "The Red Apple," *Archeion tou thrakikou laographikou kai glossikou thesaurou, Epimetron ST' tomou* (1941), 401-406.

Of greater significance is the history of animal sacrifice and the apportioning of the parts of the slain animal. For the pertinent arrangements among the Greek Christians of nineteenth-twentieth century Anatolia, D. Loucopoulos and D. Petropoulos, *E laike latreia ton Pharason* (Athens, 1949), 21, 44-49. On the arrangements among the Turks in the sixteenth century, Bartholomaeus Georgieuiz, *The Offspring of the House of Ottomanno* (London, 1570) under "The manner of their Sacrifices." The arrangements of the ancient Greeks in the matter of apportioning the parts of the sacrificed animal among priest, the offerer of the sacrifice and the community, were identical with those arrangements which prevailed among Greeks and Turks in late medieval and modern times: E. Schwyzer, *Dialectorum graecarum exempla epigraphica potiora* (Leipzig, 1923), #168, #366, #695, #721, #729; The articles "Dermatikon," "Opfer," in *Pauly-Wissowa*. See also the contributions of G. Megas, *Zetemata ellenikes laographias*, III (Athens, 1950), 27-29; "Thysia tauron kai krion en te voreioanatolike Thrake," *Laographia*, III (1911), 45. For a reference to the phenomenon of animal sacrifice in Byzantine Asia Minor, F. Cumont, "L'Archeveque de Pedachtoe et le sacrifice du faon," *Byzantion*, VI (1931), 521-533.

Some beginnings have already been made in the comparative study of Byzantine and Turkish epic poetry. H. Grégoire, "L'Épopée byzantine et ses rapports avec l'épopée turque et l'épopée romane," *Bulletin de la classe des lettres et des sciences morales et politiques de l'Academie Royale de Belgique*, XVII (Brussels, 1931, 1932), No. 12, 5e series, 463 ff. S. Kyriakides, "To epos tou Digene kai to tourkikon laikon mythistorema tou Kioroglou," *Hellenika*, XVII (1962), 252-253; "Elements historiques byzantines dans le roman épique turc de Seyyid Battal," *Byzantion*, XI (1936), 563-570. T. Alangu, "Bizans ve Türk kahramanlik eposlarinin çikisi üzerine," *Türk Dili*, II (1953), 541-557.

took root in the heartland of medieval Hellenism and because of the vast extent of conversions among Greeks and Armenians, Byzantine civilization had a profound and direct influence on this very important portion of the Islamic world. But it also exercized an indirect influence on the Seljuks and Ottomans by virtue of the Islamized Byzantine traditions which the Turks found in Islamic civilization at the time of their conversion to the religion of Muhammud. Thus Medieval Hellenism remains one of the most important constitutive and formative elements in Islamic civilization.

Byzantium exercized a relentless fascination on her younger but stronger Islamic sister. Muslim society was infatuated with the Greek world and Muslim intellectuals, despite their religious antagonism, and idealized the Byzantines as the fount of secular wisdom and knowledge, and as the master artists and craftsmen. In some ways the attitude of the Muslim to the Greek was not unlike that which the pagan Roman and the medieval Latin Christian felt toward the Graeculus.[72]

[72]Rosenthal, *op. cit.*, 66-68, 352-356. L. Massignon, "Le mirage byzantin dans le miroir baghdadien d'il y a mille ans," *Opera Minora*, I (Beirut, 1963), 126-141.